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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,816	02/24/2004	Yasuhiko Inagaki	MM4706	5080
1109 7590 02/22/2008 ANDERSON, KILL & OLICK, P.C. 1251 AVENUE OF THE AMERICAS NEW YORK,, NY 10020-1182			EXAMINER PAUL, DISLER	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 02/22/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/786,816

Applicant(s)

INAGAKI, YASUHIKO

Examiner

Disler Paul

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 4 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/24/04</u> .   | 6) <input type="checkbox"/> Other: ____                           |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Leffel (US 6,255,903) and Papopoulos et al. (US 6,681,020 B1).

Re claim 1, Leffel disclose of the signal output circuit for controlling output of an input signal (fig.-2,4 wt (16) control circuit), comprising: an internal circuit (fig.1-2 wt 12,14) ; a digital delay circuit delaying configured to delay, by digital processing, a control signal for controlling an operation of the internal circuit (fig.1 wt (29); col.2 line 53, col.3 line 5-10); and a switch configured with the input signal in accordance with an output of the digital delay circuit, (fig.1 wt (22)) wherein the control signal is a shutdown signal shutting down the internal circuit (col.8 line 52-67).

While, Leffel disclose of the above with the switch circuit and perhaps other switching mechanisms, However, Leffel fail to disclose of the specific wherein the switch being a muting switch. But, Papopoulos et al. disclose of a circuit wherein the specific of the switch being a muting switch (fig.1 wt (122)) for the purpose of suppressing the output signal without introducing transients. Thus, taking the combined teaching of Leffel and Papopoulos et al. as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have modify Leffel by incorporating the specific wherein the switch being a muting switch for the purpose of suppressing the output signal without introducing transients.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being obvious over Leffel (US 6,255,903) and Papopoulos et al. (US 6,681,020 B1) and Heithoff (US 6,346,854 B1).

Re claim 4, the signal output circuit as claimed in claimed 1 with the digital delay, However, the combined teaching of of Leffel and Papopoulos et al. as a whole, fail to disclose of the specific wherein the delay circuit comprises a logic timer. However, Heithoff disclose of a amplifier circuit wherein the delay circuit comprises a logic timer (fig.1 wt (47), fig.5-6) for the purpose of allowing the DC transients in the circuit to dampen before switching the amplifier from the two modes at a predetermine time.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over over Leffel (US 6,255,903) and Papopoulos et al. ("US 6,681,020 B1") and further in view of Nishioka et al. (US 5,220,613).

Re claim 3, the signal output circuit as claimed in claim 1, wherein a period of time for which the control signal is delayed by the digital delay circuit is set (fig.1-2 wt (29)/delay before switching), But, the combined teaching of Leffel and Papopoulos et al. as a whole, fail to disclose of the setting of the delay so that the muting of the input signal is canceled after the internal circuit is activated based on the control signal. However, Nishioka et al. disclose of an audio amplifier wherein the concept of setting up a delay so that to have the muting of a signal to be cancel after circuit is activated (col.3 line 20-32, col.6 line 22-26/time mute cancel after the signal output is activated) for the purpose of inhibiting a pop sound from exceeding the pre-charge voltage. Thus, taking the combined teaching of Leffel and Papopoulos et al. and Nishioka et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modify the combined teaching of Leffel and Papopoulos et al. as a whole, by incorporating the concept of setting up a delay so that to have the muting of a signal to be cancel after circuit is activated for the purpose of inhibiting a pop sound from exceeding the pre-charge voltage.

***Allowable Subject Matter***

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Application/Control Number:  
10/786,816  
Art Unit: 2615

Page 4

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DP



VIVIAN CHIN

SUPERVISORY PATENT EXAMINER